Institutional Status Review
580/Information Systems Center

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Real-Time Software Engineering Branch

March 24, 2000

AGENDA

➢ **TECHNOLOGY HIGHLIGHTS**

➢ **ISC PARTNERING AND OUTREACH**

➢ **INSTITUTIONAL STATUS**
  – **Papers and Conferences**
  – **External Outreach**
  – **IT Security**
  – **Good News**
  – **Personnel**
  – **Procurement**
  – **ISO 9000 QMS**
  – **Facilities**

➢ **TOP ISSUES**

ISC Technology Highlights

Technology Activity/Project	Customer	Lead Code(s)	Major Accomplishments/Highlights/Comments	Status			
				Tech Issues	Schedule Issues	Cost Issues	Staffing Issues
MARSAT		584	Gave presentation to project personnel on ISC's interest in providing new technology support in areas of autonomous operations, space-based communications protocols, on-board data synthesis, and autonomous scheduling				
FIS/GIST	GSFC	580	Participated in development of IT visiting committee selection and scheduling				
SERS/visage	NOAA/ ESDIS	588	Began discussions and demonstrations for infusion of new technologies into NOAA SOCC				

Activity	Issue Code	Issue	Action

Legend: T=Technical; Sc=Schedule; C=Cost; S=Staffing

ISC Technology Highlights

				Status			
Technology Activity/Project	**Customer**	**Lead Code(s)**	**Major Accomplishments/Highlights/ Comments**	**Tech Issues**	**Schedule Issues**	**Cost Issues**	**Staffing Issues**
AIST	CODEY	580	Provided four evaluators for review panel of Code Y's Applied Information Systems Technology NRA proposals				
Technology Presentations	SOMO	58X	Presented more than 20 technology activity summaries to SOMO NAR. Awaiting formal feedback				
CETDP	NASA HQ	58X	Submitted 12 proposals to CETDP NRA				
		580	Participating in an Agency level team to revise NPG 7120.5A to accommodate Research and Technology Programs and Initiatives				

Activity	**Issue Code**	**Issue**	**Action**

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ISC Technology Highlights

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				Tech Issues	Schedule Issues	Cost Issues	Staffing Issues
IMAGE 2000		588	Project is coordinating with the Center for Image Processing in Education (CIPE) for maintenance transfer & delivery of the program to over 5,000 educators at the end of this Fiscal Year.				
System Eng	Code 400	584	Ken Lehtonen presented the IMOC VIT recommendations to JSC and GSFC Center Directors at a January 12th meeting in Houston - overall reaction to the presentation was favorable.				
Knowledge Management	NASA CIO	585	Top 2 GSFC Knowledge Capture and Sharing Applications identified to Agency Knowledge Management Team.				

Activity	Issue Code	Issue	Action
Systems Eng			

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ISC Technology Highlights

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				Tech Issues	Schedule Issues	Cost Issues	Staffing Issues
NPP	Standards Office	585/ 586	Presented NPP Science Data processing concepts at National Academy of Sciences "Workshop on Climate Processing and Archive Strategy for NPP and NPOESS".				
Scientist's Mission Assistant & Research Tool (SMART)		588	1. Demonstrated initial prototype 2. Sponsored a seminar on case-based reasoning by David Aha of NRL				
Operating Missions as Nodes on the Internet (OMNI)		588	1. Established preliminary agreement with Code 570, leading to formation flying testbed 2. Drafted test plan for FY2000 3Q IP-in-space				

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ISC Technology Highlights

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				Tech Issues	Schedule Issues	Cost Issues	Staffing Issues
Onboard Component Architecture (OCA)		588	Completed evaluation and selected the University of Washington's TAO Object Request Broker				
Visualization and Graphical environment (VisAGE)			Delivered VisAGE 3.1 for Triana and MAP				
		581	Visited the Globalstar operations center in San Jose - they operate 52 spacecraft with a team of ~100 personnel and have 1,600 passes a day with automated operations - staff handles the exceptions				

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ISC Partnering & Outreach

➢ Conducted a full day of technology demonstrations for USAF, AFRL and NOAA - created significant interest levels for follow-up for possible infusion and further developmental partnerships

➢ Initiated technology discussions with RSDO for infusion opportunities and making technology available to catalog vendors

➢ Paula Reitan/Code 587 demonstrated the Community Coordinated Modeling Center's (Space Weather) earth magnetosphere visualization capabilities to partners from NASA HQ, National Science Foundation, Air Force Research Laboratory, Air Force Weather Agency, etc.

ISC Institutional Status

➢ Papers and Conferences

- – Jeremy Jones/Code 588 presented SEA project's, "Lessons Learned from the Scientist's Expert Assistant", "NGST's Scientist's Expert Assistant: Evaluations Results", and "Expert System Technology in Observing Tools", at the SPIE 2000 Symposium on Astronomical Telescopes and Instrumentation

- – Troy Ames/Code 588 presented IRC project, "Using XML and JAVA for instrument and spacecraft control" at the SPIE 2000 Conference

- – Mike Tong/Code 583 presented a commentary on the white paper presented by JPL titled, "Challenges and Methods in Testing the Remote Agent Planner" at the 2nd International NASA Workshop on Planning and Scheduling for Space in San Francisco March 16-18th

ISC Institutional Status

➢ Papers and Conferences (Continued)

– Lori Perkins/Code 584 created series of animations and visuals for the AAAS Conference on Earth topologies on February 21st, and had an estimated audience of 16 million viewers - these visuals were used in their entirety by MSNBC, CNN, The Environmental News Network, Governors' policy advisors, and Iowa Department of Public Education - She also produced several Seawiffs animations of the floods in Africa

➢ External Outreach

– Debra Parks/Code 584 presented during National Engineer's Week, and instructed 6 computer skills classes at Mary N. Smith Middle School (Accomack County,VA)

ISC Partnering & Outreach

➢ External Outreach (Continued)

– Code 584 conducted tour of SOHO Control Center for 25 children from Pimlico Middle School

– Steve Bailey/Code 584 manned a booth March 3rd at the Sommerset County Career Day at Washington High School?., Princess Anne, Maryland

– Lori Perkins/Code 584 served as a Science fair judge at a local Maryland high school

– Jacqueline Mims/Code 586 was a featured speaker along with Mr. Al Diaz at a ceremony for High School for High Technology - a program that actively recruits young people with disabilities and facilitates greater exposure and interest in high technology fields

ISC Institutional Status

➢ IT Security

–   Code 585 presented security briefing at ESDIS Aqua Mission Planning Review and at the ICEsat MOR on March 21st in Boulder, Colorado

–   Code 585 presented security prototype demonstration on Public Key Infrastructure (PKI), an Intrusion Detection Systems (IDS), and an open centralized security framework (command post) February 29th to ESDIS Community

ISC Good News

➢ Good News

- – Cindi Adams/Code 584 was selected as a finalist in the category of Technical, Scientific, & Program Support for the upcoming Outstanding Technical Professional Award sponsored by the Baltimore Federal Executive Excellence in Federal Career Board

- – Pat Johnson/Code 583 received a Group Achievement Award for her excellent support on the Lunar Prospector Navigation and Mission Design Team

- – Carol Boquist/Code 587 received an Excellence in Outreach Group Award as part of the UARS Project Science Office for the development of the UARS Brochure

ISC Good News

➢ Good News (Continued)

   – Bob Connerton/Code 581 was selected as a member of the Space Science Enterprise Technology Steering Group representing the Structure and Evolution of the Universe area

   – Doug Spiegel/Code 584 won a Space Flight Awareness Award for his support of the HST servicing mission

ISC Institutional Status

➢ Personnel

– ISC had one change in personnel due to a retirement

➢ Procurement

– Jay Pittman/Code 584.W presented final recommendations of the WFF Contract Replacement Team to the directors of Codes 500 & 800 - this team's goal was to define and implement replacement a replacement contract for WFF-wide engineering support

– Meeting to discuss contract issues scheduled for early April with procurement

ISC Institutional Status

- ➢ ISO-9000 QMS

  - – Continuing to develop software methodology guidelines for compliance with ISO/GDMS requirements

- ➢ Facilities

  - – Beginning ISC personnel moves in Building 23 on April 3rd to accommodate HVAC work

- ➢

ISC Top Issues

ISR INITIATION DATE	ACTIVITY/ PROJECT EFFECTED	ISSUE	ACTION
3/24/00	ESDIS	Staffing needs exceed discipline – specific capacity of ISC to fill	Within ISC search has exhausted staffing options; relief needed for senior positions and FTEs to allow out-of-ISC personnel actions